

SERIES 2200 DIGITAL PRINTERS



- 2400 lines per minute ▪ 1 to 22 columns ▪ data printout in 12 milliseconds ▪
- 10 to 40 different characters and blank ▪ zero suppression ▪ freedom from maintenance ▪

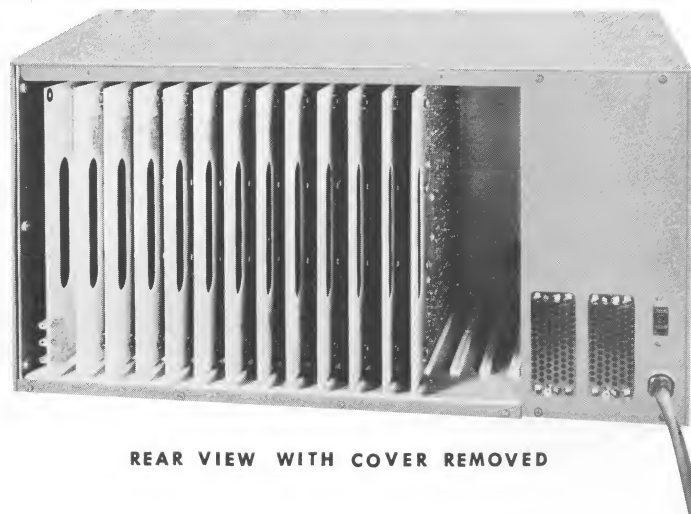
FRANKLIN
electronics, inc.

A DIVISION OF ANELEX CORPORATION

Franklin Series 2200 Digital Printers . . . Specifications and General Description



FRONT VIEW



REAR VIEW WITH COVER REMOVED

versatile . . . reliable . . . maintenance free

HIGHEST SPEED, LOW-COST PRINTER AVAILABLE . . . 40, 30 or 20 lines per second as well as intermediate and lower speeds.

DECIMAL OR ALPHA-NUMERIC OPERATION . . . Prints numerals 0 through 9 as well as various symbols and the alphabet, depending upon model.

ANY BINARY INPUT CODE . . . Accepts 4-line BCD or binary and 6-line binary code. Various code levels available.

ZERO SUPPRESSION . . . Insignificant zero suppressed optionally in any column.

UP TO 22 COLUMNS . . . Use all or any of 22 columns for printing. Columns may be located at users' option.

ASYNCHRONOUS OPERATION . . . High print speed maintained with either synchronous or asynchronous data input.

ROLL OR FAN-FOLD PAPER LOADING . . . Models available for either type of paper loading.

CONTROL SIGNALS AVAILABLE FOR ALL FUNCTIONS . . . Input and output signal provisions provide for a wide variety of systems applications.

UNIQUE AND SIMPLE DESIGN . . . Permanent freedom from wear and breakdown. Only drive motor requires lubrication—two or three drops of oil a year.

ALL SOLID-STATE CIRCUITRY . . . High-efficiency, military-type circuit construction

ONLY TWO MOVING PARTS IN PAPER SHIFT MECHANISM . . . A permanently lubricated ball bearing supported rotor and an idler on nylon bearings shifts the paper.

AUTOMATIC RIBBON REVERSAL . . . At least 1,000,000 lines of print before ribbon requires changing.

RIBBON AND PAPER REPLACEMENT IN SECONDS . . . Print drum is supported at one end only. Ribbon and paper slide under drum. No threading.

"PAPER OUT" INDICATOR . . . Bright light signals when paper has run out; printer is simultaneously inhibited.

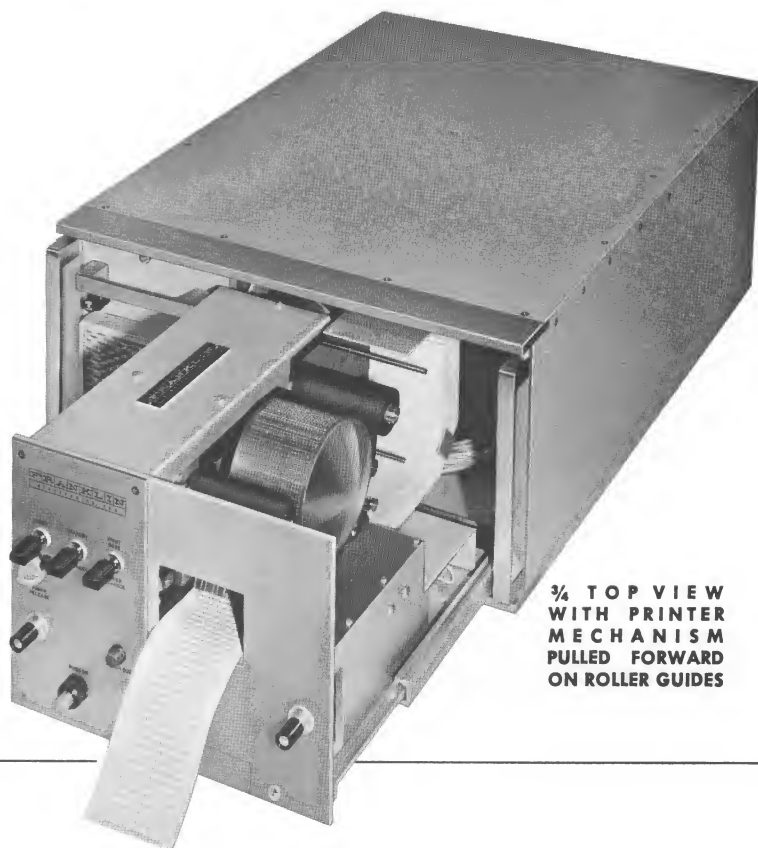
FRONT PAPER LOADING . . . Roll out printer mechanism mounted on heavy-duty roller slides. Pulls forward a full 10 inches.

SEALED, PERMANENTLY LUBRICATED RIBBON DRIVE MOTOR . . . No maintenance or lubrication required. Nylon or teflon bearings.

POSITIVE HAMMER ALIGNMENT . . . Simple external hammer alignment adjustment requires no disassembly or special tools. Alignment holds through millions of operations.

ONLY TWO MOVING PARTS PER COLUMN . . . Movement is so slight that parts cannot be observed to move. Hammers move less than 0.05 in. No lubrication ever required.

PERMANENT SOLENOID AND TIMING GEAR SETTINGS . . . No adjustment ever required.

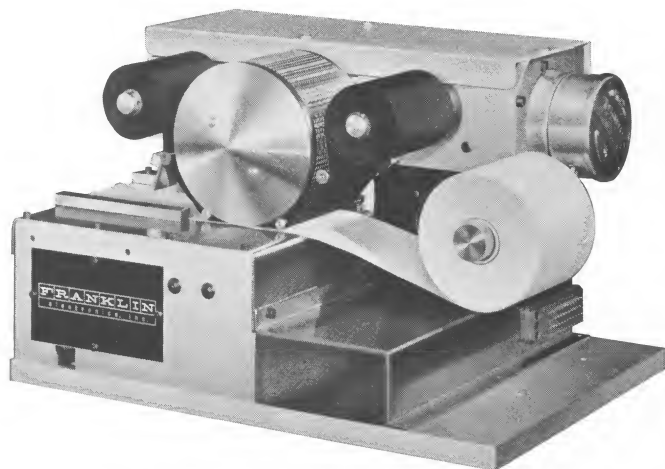


MODULAR CONSTRUCTION . . . Printed-circuit plug-in boards keyed and color coded for prevention of accidental misuse.

CIRCUIT SPARES . . . Extra slots in rear of printer for storing one each of the different kinds of printed circuit boards used in the printer.

LOW NOISE LEVEL . . . Mechanical and electrical noise at low, low levels. With line filter, printer conforms to MIL-I-26600.

TABLE OR RACK MOUNTING . . . Use as table model or in any standard 19-inch rack with a depth of at least 18 in.



FIRST IN PRINTER DEVELOPMENTS

The Franklin Series 2200 Digital Printers offer a truly unique combination of advantages. Feature for feature, they outperform similar printers on every count. Physically and electrically they are many times more rugged than the usual printer, requiring a minimum of maintenance . . . two or three drops of oil to the drive motor per year . . . occasional cleaning of the air filter.

General overall specifications are on back cover. For complete application information, request Application and Engineering Guide 2042A.

Also see back cover for a brief description of other Franklin Digital Printers.

BRIEF COMPARISON CHART

FEATURE	FRANKLIN	MFG. A	MFG. B
PRINT RATE (Synchronous)	10, 20, 30 OR 40 LINES/SEC.	18 LINES/SEC.	5 LINES/SEC.
MAX. PRINT RATE (Asynchronous)	40 LINES/SEC.	ABOUT 9 LINES/SEC.	ABOUT 5 LINES/SEC.
COLUMN CAPACITY	1 TO 22	4, 8, 12, 16.	6 TO 12.
CHARACTER CODE	BCD	BCD	BCD OR 10-LINE
RACK HEIGHT	8¾ IN.	12¼ IN.	10½ IN.

[illegible]

SPECIFICATIONS . . . SERIES 2200 DIGITAL PRINTERS

For complete application information, request Application and Engineering Guide 2042A.

PRINTING RATE

Decimal Printer:

- 40 lines per second with Print Drum Type 8A.
- 30 lines per second with Print Drum Type 6A.
- 20 lines per second with Print Drum Type 2B.

Alpha-Numeric Printer: (6-wire input.)

- 20 lines per second with Print Drum Type 2C.

Note: Intermediate speeds as well as lower speeds are available.

NUMBER OF COLUMNS

- 22 columns.

COLUMN AND LINE SPACING

- 10 columns per inch; 6 lines per inch.

PAPER STOCK

2 3/4" wide x 200' long. As specified with order, printer will accept either roll or folded paper stock. Printer has provisions for quickly converting from one paper stock to the other by means of a simple kit. Kit is optional extra.

RIBBON

A silk inked ribbon is arranged to traverse the printing area at a constant rate with automatic reversal.

PRINTABLE CHARACTERS (DRUM TYPE DESCRIPTIONS)

8A Print Drum: 22 columns of characters. All columns have 12 characters available for printing; 0 through 9, decimal point, and minus sign. Use all 12 characters for synchronous operation. Use any 11 characters for asynchronous operation.*

6A Print Drum: 22 columns of characters. All columns have 16 characters available for printing; 0 through 9, -, +, *, ~, Ω, *. Use all 16 characters for synchronous operation. Use any 15 characters for asynchronous operation.*

2B Print Drum: 22 columns of characters. All columns have 16 characters available for printing; 0 through 9, %, +, -, ~, Ω, *.

2C Print Drum: 22 columns of characters. All columns have 40 characters available for printing; 0 through 9, A through Z, +, -, *, *. (Straight 6-wire binary only.) With 4-wire BCD input, user may select any 16 consecutive characters for printing in each column.

* For a complete discussion of synchronous and asynchronous operation, see Franklin Electronics Printer Application and Engineering Guide No. 2042A.

CYCLE (PRINT TIME) AT 600 RPM DRUM SPEED

8A Print Drum (40 lines per second): Prints 10 decimal digits in 10.4 milliseconds; provides 14.6 milliseconds idle time for data acquisition.

6A Print Drum (30 lines per second): Prints 10 decimal digits in 10.4 milliseconds; provides 22.6 milliseconds idle time for data acquisition.

2B Print Drum (20 lines per second): Prints 10 decimal digits in 10.4 milliseconds; provides 39.6 milliseconds idle time for data acquisition.

2C Print Drum (20 lines per second): Prints 40 alpha-numeric characters in 41.6 milliseconds; provides 8.4 milliseconds idle time for data acquisition.

DATA INPUT CODES (BINARY CODES ONLY)

BCD LOGIC LEVELS

Condition	Standard (As Specified)		Specials (Optional Extra)	
Off (0)	0 V	-6 to -30 V	0 V	+7 to +15 V
On (1)	-6 to -30 V	0 V	+7 to +15 V	0 V

ZERO SUPPRESSION

Optional.

INPUT CONTROL SIGNAL PROVISIONS

- Print on positive pulse.
- Print on negative pulse.
- Print once.
- Inhibit print.
- Enable signal.

OUTPUT CONTROL SIGNAL PROVISIONS

- Printer recording. Hold data.
- Printout complete. Gather new data.

POWER REQUIREMENTS

105-125 V, 60 cps standard; 4 A max. for 22 columns. Also available for 115 V, 50 cps, and 230 V, 50 or 60 cps.

MOUNTING

Adjustable to fit any standard 19" rack with a depth of at least 18". For a flush installation, a depth of 26" behind panel is required. In shallow racks, front of printer protrudes 2" to 6", depending upon rack depth available. Removable mounting ears provide attractive table mounting.

SIZE AND WEIGHT

8 3/4" H x 19" W x 23 1/2" D. 104 lbs.

WARRANTY

50 million lines or one year, whichever occurs first.

OTHER FRANKLIN PRINTERS

BASIC MODEL NO.	DISTINGUISHING CHARACTERISTICS	FOR COMPLETE DESCRIPTIVE INFORMATION, REQUEST
120A	ALPHA-NUMERIC STRIP PRINTER. PRINTS A CONTINUOUS, LEFT-TO-RIGHT-READING LINE OF PRINT ON 1/2" WIDE PAPER TAPE. PRINT RATE IS UP TO 20 CHARACTERS PER SECOND.	BULLETIN 2045
1200	DECIMAL PRINTER. PRINTS 12 COLUMNS AT RATES UP TO 20 LINES PER SECOND. ACCEPTS BINARY AND BCD CODES. HIGHER AND LOWER PRINTING RATES ARE AVAILABLE IN SOME MODELS.	BULLETIN 2050A
1000	DECIMAL OR ALPHA-NUMERIC PRINTER. PRINTS UP TO 20 COLUMNS AT RATES UP TO 40 LINES PER SECOND. MODELS ARE AVAILABLE TO ACCEPT BINARY, BCD, 10-LINE, AND MIXED CODES. HIGHER AND LOWER PRINT RATES ALSO AVAILABLE.	BULLETIN 2301
M-1000	MILITARIZED PRINTER. DECIMAL AND ALPHA-NUMERIC MODELS. HAS MANY OF THE CHARACTERISTICS OF THE MODEL 1000. ALL TYPES OF INPUT CODES. MODELS FOR PARALLEL OR SERIAL ENTRY.	BULLETIN MIL

Specifications subject to change without notice.



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